

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID: M03061  
Date Received: 09/29/08  
Date Extracted: 09/29/08  
Date Analyzed: 09/30/08  
Matrix: Soil  
Units: mg/kg (ppm)

Client: Alaskan Copper Works  
Project: PO M03061, F&BI 809308  
Lab ID: 809308-01 x10  
Data File: 809308-01 x10.029  
Instrument: ICPMS1  
Operator: hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	7,690

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### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Alaskan Copper Works
Date Received:	Not Applicable	Project:	PO M03061, F&BI 809308
Date Extracted:	09/29/08	Lab ID:	I8-371 mb
Date Analyzed:	09/30/08	Data File:	I8-371 mb.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower	Upper
Holmium	95	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Lead	<1

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 10/03/08

Date Received: 09/29/08

Project: Paint Sample 3200, PO M03061, F&BI 809308

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 809298-11 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	23.3	22.2	5	0-20

Laboratory Code: 809298-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	50	23.3	114 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	106	70-130

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### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 - More than one compound of similar molecule structure was identified with equal probability.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte indicated may be due to carryover from previous sample injections.
- d - The sample was diluted. Detection limits may be raised due to dilution.
- ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb - The analyte indicated was found in the method blank. The result should be considered an estimate.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht - The sample was extracted outside of holding time. Results should be considered estimates.
- ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The result is below normal reporting limits. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The pattern of peaks present is not indicative of diesel.
- y - The pattern of peaks present is not indicative of motor oil.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

October 3, 2008

 **DUPLICATE**

**INVOICE #08ACU1003-1**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project Paint Sample 3200, PO M03061, F&BI 809308 - Results of testing  
requested by Gerry Thompson for material submitted on September 29, 2008.

1 sample analyzed for Lead by Method 200.8 @ \$30 per sample	\$ 30.00
Rush Charges (24 hr) 100% of \$30.00	<u>30.00</u>
Amount Due .....	\$ 60.00

FEDERAL TAX ID # (b) (6)



809308

## SAMPLE CHAIN OF CUSTODY

ME 09/29/08

625

ATU

Send Report To Gerry ThompsonCompany Alaskan Copper WorksAddress 628 South HanfordCity, State, ZIP Seattle, WA 98134Phone # 382-8379 Fax # 382-4309

SAMPLERS (signature)

PROJECT NAME/NO.

Paint Sample 300

PO #

MO3061

REMARKS

Call with vetels  
206-571-6037

Page # of

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH ASAP

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions



Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	Cr, Cu, Ni & Zn														Notes
MO3061	01	9/25	2:00	Paint	1															

Friedman & Bruya, Inc.  
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Gerry Thompson	ACW	9/29	10:32am
Received by: 	Nhan Phan	FeBT	9/29/08	10:32
Relinquished by:				
Received by:				
Samples received at: 20 °C				

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October 3, 2008

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on September 29, 2008 from the Paint Sample 3200, PO M03061, F&BI 809308 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
ACU1003R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 29, 2008 by Friedman & Bruya, Inc. from the Alaskan Copper Works Paint Sample 3200, PO M03061, F&BI 809308 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID  
809308-01

Alaskan Copper Works  
M03061

All quality control requirements were acceptable.